

REMARKS

Claims 1-7 have been examined. Claims 1 and 2 have been rejected under 35 U.S.C. § 112, second paragraph, claims 3 and 5-7 have been rejected under 35 U.S.C. § 102(b), and claims 1-2 and 4 have been rejected under 35 U.S.C. § 103(a).

Preliminary Matters

The Examiner has objected to Figures 4-9 because they are not labeled as “Prior Art”. Accordingly, Applicant is submitting substitute formal drawings with this Amendment, and respectfully requests the Examiner to withdraw the objection.

The Examiner has further objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5) because they do not include reference sign “n” mentioned on pg. 6, line 20. Accordingly, Applicant has amended Fig. 4 to include the reference sign “n”.

The Examiner has objected to the specification due to minor informalities. Accordingly, Applicant has amended the specification in a manner believed to remove the noted informalities.

Also, the Examiner has objected to claims 1 and 3 due to minor informalities. Accordingly, Applicant has editorially amended claim 1, as well as claim 2. Applicant submits that such changes are made for precision of language and do not narrow the literal scope of the claims, and thus, do not implicate an estoppel in the application of the doctrine of equivalents. Further, Applicant submits that the amendments were not made for reasons of patentability.

Since claim 3 has been canceled, without prejudice or disclaimer, Applicant submits that the objection to such claim is now moot.

Finally, Applicant has editorially amended the Abstract.

Rejections under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 1 and 2 under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In particular, the Examiner maintains that it is unclear whether the brazing material in claim 1, line 15, is the same material as the brazing foil set forth in line 8. Accordingly, Applicant has amended the claims, and submits that such amendments overcome the rejection.

Rejections under 35 U.S.C. § 102(b)

Claims 3 and 5-7 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,948,774 to Usui et al. ("Usui '774) or U.S. Patent No. 5,026,611 to Usui et al. ("Usui '611")

A. Rejections in view of Usui '774

1. Claims 3 and 5

Applicant has canceled claims 3 and 5 without prejudice or disclaimer. Accordingly, Applicant submits that the rejections of claims 3 and 5 are now moot.

2. Claims 6 and 7

Since claims 6 and 7 are dependent upon claim 1, which is discussed below, Applicant submits that such claims are patentable at least by virtue of their dependency.

B. Rejections in view of Usui ‘611

1. Claims 3 and 5

Applicant has canceled claims 3 and 5 without prejudice or disclaimer. Accordingly, Applicant submits that the rejections of claims 3 and 5 are now moot.

2. Claims 6 and 7

Since claims 6 and 7 are dependent upon claim 1, which is discussed below, Applicant submits that such claims are patentable at least by virtue of their dependency.

Rejections under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1, 2 and 4 under 35 U.S.C. § 103(a) as unpatentable over either Usui ‘774 or Usui ‘611 alone or in combination with JP 08-141413 to Shimada (“Shimada”) and U.S. Patent No. 4,248,186 to Nonnenmann et al. (“Nonnenmann”).

A. Rejections in view of Usui '774, Shimada and Nonnenmann

1. Claim 1

Claim 1 recites that a brazing foil material is wound around an outer periphery of an exhaust gas outlet side of a core, while a solder-rising preventing groove is defined at a position located on an exhaust gas inlet side.

The Examiner maintains that Usui '774 discloses the above features. In particular, the Examiner maintains that the grooves 7 disclose the claimed solder-rising preventing groove, and the brazing material 8 discloses the claimed brazing foil material. However, as stated above, the claimed brazing foil material is wound around an exhaust outlet side, while the solder-rising preventing groove is provided on an exhaust inlet side. Accordingly, the claimed brazing foil material is wound around the core at a side opposite from the placement of the solder-rising preventing groove, i.e. is not provided in the solder-rising preventing groove. As set forth in the non-limiting embodiment on pg. 8 of the present Application, such configuration prevents rising of the solder, which in turn prevents falling away of core parts in their cellular forms.

On the contrary, Usui '774 discloses that the grooves 7 serve to retain the brazing material 8 (col. 4, lines 24-25). In particular, the rods of brazing material 8 are held in each of the grooves 7 to provide an adequate degree of joining strength (col. 4, lines 43-45). Since the brazing material 8 is actually placed in the grooves 7, rather than wound around on an opposite side of a core from the grooves 7, Applicant submits that Usui '774 fails to teach or suggest the features recited in claim 1.

In addition, since Shimada and Nonnenmann fail to cure the deficient teachings of Usui '774, as set forth above, Applicant submits that claim 1 is patentable over the cited references.

2. Claims 2 and 4

Since claim 2 is dependent upon claim 1, Applicant submits that such claim is patentable at least by virtue of its dependency.

Also, since claim 4 has been canceled, without prejudice or disclaimer, Applicant submits that the rejection of such claim is now moot.

B. Rejections in view of Usui '661, and Shimada and Nonnenmann

1. Claim 1

Since Usui '661 discloses similar features as Usui '774, Applicant submits that claim 1 is patentable over Usui '661, Shimada and Nonnenmann for at least analogous reasons as presented above.

2. Claims 2 and 4

Since claim 2 is dependent upon claim 1, Applicant submits that such claim is patentable at least by virtue of its dependency.

Also, since claim 4 has been canceled, without prejudice or disclaimer, Applicant submits that the rejection of such claim is now moot.

Newly Added Claim

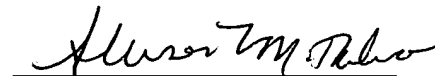
Applicant has added new claims 8-14 to provide more varied protection of the present invention.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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